Appln. No. 10/617,733 Attorney Docket No. 053588-5013-US

IN THE CLAIMS:

This listing of claims provided below will replace all prior versions and listings of claims in the application.

1. (Previously Presented) An inkjet ink comprising a pigment, a water-soluble solvent and water, the water-soluble solvent comprising:

a first water-soluble solvent group comprising a water-soluble solvent represented by the following general formula (I) and having a solubility parameter SP₁;

a second water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 greater than the solubility parameter SP₁ and;

a third water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 less than the solubility parameter SP₁;

wherein respective contents (% by mass) of the water-soluble solvent groups contained in the inkjet ink satisfy the following equation (1) and the following equation (2):

General formula (I)

Equation (1)

$$W_2/W_1 \ge 1.5$$

Equation (2)

$$0.25 \le W_3/W_1 \le 0.75$$

wherein in general formula (I), equation (1) and equation (2), n represents an integer of 3 to 6; R represents hydrogen or a methyl group; W₁ represents a content (% by mass) of the first water-soluble solvent group contained in the inkjet ink; W₂ represents a content (% by mass) of the second water-soluble solvent group contained in the inkjet ink; and W₃ represents a content (% by mass) of the third water-soluble solvent group contained in the inkjet ink.

2. (Previously Presented) The inkjet ink of claim 1, wherein the first water-soluble organic solvent group further comprises a water-soluble solvent other than the water-soluble solvent represented by general formula (I), having a solubility parameter such that an absolute value of a difference thereof from the solubility parameter SP₁ is less than 1.

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- 3. (Previously Presented) The inkjet ink of claim 1, wherein the pigment is self-dispersible in water.
- 4. (Previously Presented) The inkjet ink of claim 3, further comprising a polymer anion or a polymer cation.
- 5. (Previously Presented) The inkjet ink of claim 1, further comprising a polymer dispersant, wherein the pigment is dispersed by the polymer dispersant.
- 6. (Currently Amended) An inkjet ink comprising a pigment, a water-soluble solvent and water, the water-soluble solvent comprising:

a first water-soluble solvent group comprising a water-soluble solvent represented by the following general formula (I) and having a solubility parameter SP₁;

a second water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 greater than the solubility parameter SP₁ and;

a third water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 less than the solubility parameter SP₁;

wherein respective contents (% by mass) of the water-soluble solvent groups contained in the inkjet ink satisfy the following equation (1) and the following equation (2):

General formula (I)

Equation (1)

$$W_2/W_1 \ge 1.51.0$$

Equation (2)

$$0.25 \le W_3/W_1 \le 0.75$$

wherein in general formula (I), equation (1) and equation (2), n represents an integer of 3 to 6; R represents hydrogen or a methyl group; W₁ represents a content (% by mass) of the first water-soluble solvent group contained in the inkjet ink; W₂ represents a content (% by mass) of the second water-soluble solvent group contained in the inkjet ink; and W₃ represents a content (% by mass) of the third water-soluble solvent group contained in the inkjet ink,

wherein the first water-soluble organic solvent group further comprises a water-soluble

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solvent other than the water-soluble solvent represented by general formula (I), having a solubility parameter such that an absolute value of a difference thereof from the solubility parameter SP₁ is less than 1, and

wherein an absolute value of a ζ potential of the inkjet ink is in the range of 3 mV to 60 mV.

- 7. (Previously Presented) The inkjet ink of claim 1, wherein the surface tension of the inkjet ink is at least 20 Nm/m and less than 45 mN/m.
- 8. (Previously Presented) The inkjet ink according to claim 1, wherein the viscosity of the inkjet ink is at least 1.2 mPa•s and less than 6.0 mPa•s.
- 9. (Previously Presented) An inkjet recording method of printing on a recording medium, the recording medium comprising a multivalent metal salt, an organic cationic substance or an organic anionic substance, using an inkjet ink comprising a pigment, a water-soluble solvent and water, wherein:

the water-soluble solvent comprises,

a first water-soluble solvent group comprising a water-soluble solvent represented by the following general formula (I) and having a solubility parameter SP₁,

a second water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 greater than a solubility parameter SP₁, and

a third water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 less than the solubility parameter SP₁; and

wherein respective contents (% by mass) of the water-soluble solvent groups contained in the inkjet ink satisfy the following equation (1) and the following equation (2):

General formula (I)

Equation (1)

$$W_2/W_1 \ge 1.5$$

Equation (2)

$$0.25 \le W_3/W_1 \le 0.75$$

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wherein in general formula (I), equation (1) and equation (2), n represents an integer of 3 to 6; R represents hydrogen or a methyl group; W₁ represents a content (% by mass) of the first water-soluble solvent group contained in the inkjet ink; W₂ represents a content (% by mass) of the second water-soluble solvent group contained in the inkjet ink; and W₃ represents a content (% by mass) of the third water-soluble solvent group contained in the inkjet ink.

- 10. (Previously Presented) The inkjet recording method of claim 9, wherein the first water-soluble organic solvent group further comprises a water-soluble solvent other than the water-soluble solvent represented by the general formula (I), having a solubility parameter such that an absolute value of a difference thereof from the solubility parameter SP₁ is less than 1.
- 11. (Previously Presented) The inkjet recording method of claim 9, wherein the number of particles having particle diameters of 5 μ m or larger contained in the inkjet ink is 1 x $10^2/\mu$ l or more, and wherein the inkjet ink is added dropwise to a surface of the recording medium.
- 12. (Previously Presented) An inkjet recording method, wherein a liquid composition comprising a multivalent metal salt, an organic cationic substance or an organic anionic substance is imparted to a surface of a recording medium and, thereafter, printing is conducted on a region of the surface of the recording medium to which the liquid composition has been imparted, using an inkjet ink comprising a pigment, a water-soluble solvent and water, wherein:

the water-soluble solvent comprises

a first water-soluble solvent group comprising a water-soluble solvent represented by the following general formula (I) and having a solubility parameter SP₁;

a second water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 greater than a solubility parameter SP₁ and;

a third water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 less than the solubility parameter SP₁; and

wherein respective contents (% by mass) of the water-soluble solvent groups contained in the inkjet ink satisfy the following equation (1) and the following equation (2):

General formula (I)

HO-(CHR-CH₂-O-)_n-H

Equation (1)

 $W_2/W_1 \ge 1.5$

Equation (2)

$$0.25 \le W_3/W_1 < 0.75$$

wherein in general formula (I), equation (1) and equation (2), n represents an integer of 3 to 6; R represents hydrogen or a methyl group; W₁ represents a content (% by mass) of the first water-soluble solvent group contained in the inkjet ink; W₂ represents a content (% by mass) of the second water-soluble solvent group contained in the inkjet ink; and W₃ represent a content (% by mass) of the third water-soluble solvent group contained in the inkjet ink.

- 13. (Previously Presented) The inkjet recording method of claim 12, wherein the first water-soluble organic solvent group further comprises a water-soluble solvent other than the water-soluble solvent represented by the general formula (I), having a solubility parameter such that an absolute value of a difference thereof from the solubility parameter SP_I is less than 1.
- 14. (Previously Presented) The inkjet recording method of claim 12, wherein the number of particles having particle diameters of 5 μ m or larger in a mixed solution of the inkjet ink and the liquid composition is $1.0 \times 10^3/\mu l$ or more.
- 15. (Previously Presented) An inkjet recording method of printing on a recording medium by a thermal inkjet system or a piezo-inkjet system using an inkjet ink comprising a pigment, a water-soluble solvent and water, wherein:

the water-soluble solvent comprises

a first water-soluble solvent group comprising a water-soluble solvent represented by the following general formula (I) and having a solubility parameter SP₁,

a second water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 greater than a solubility parameter SP₁, and

a third water-soluble solvent group comprising a water-soluble solvent having a solubility parameter which is at least 1 less than the solubility parameter SP₁; and

wherein respective contents (% by mass) of the water-soluble solvent groups contained in the inkjet ink satisfy the following equation (1) and the following equation (2):

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General formula (I)

Equation (1)

$$W_2/W_1 \ge 1.5$$

Equation (2)

$$0.25 \le W_3/W_1 \le 0.75$$

wherein in general formula (I), equation (1) and equation (2), n represents an integer of 3 to 6; R represents hydrogen or a methyl group; W₁ represents a content (% by mass) of the first water-soluble solvent group contained in the inkjet ink; W₂ represents a content (% by mass) of the second water-soluble solvent group contained in the inkjet ink; and W₃ represents a content (% by mass) of the third water-soluble solvent group contained in the inkjet ink.

- 16. (Previously Presented) The inkjet recording method of claim 15, wherein the first water-soluble organic solvent group comprises a water-soluble solvent other than the at least one kind of water-soluble solvent represented by general formula (I), having a solubility parameter such that an absolute value of a difference thereof from the solubility parameter SP₁ is less than 1.
- 17. (Previously Presented) The inkjet recording method of claim 15, wherein the amount of the inkjet ink to be imparted to a surface of the recording medium is 25 ng or less per one droplet.
- 18. (Previously Presented) The inkjet ink of claim 1, wherein the water-soluble solvent represented by the general formula (I) is selected from a group consisting of tetraethylene glycol, pentaethylene glycol, hexaethylene glycol, and tripropylene glycol.
- 19. (Previously Presented) The inkjet recording method of claim 9, wherein the water-soluble solvent represented by the general formula (I) is selected from a group consisting of tetraethylene glycol, pentaethylene glycol, hexaethylene glycol, and tripropylene glycol.
- 20. (Previously Presented) The inkjet recording method of claim 12, wherein the water-soluble solvent represented by the general formula (I) is selected from a group consisting of tetraethylene glycol, pentaethylene glycol, hexaethylene glycol, and tripropylene glycol.

21. (Previously Presented) The inkjet recording method of claim 15, wherein the water-soluble solvent represented by the general formula (I) is selected from a group consisting of tetraethylene glycol, pentaethylene glycol, hexaethylene glycol, and tripropylene glycol.